

I claim:

1.

In combination,

an inverted liquid container having upper and lower ends;

said lower end of said container having a hollow throat extending downwardly therefrom
which has interior and exterior surfaces;

a throat plug assembly having upper and lower ends, positioned in said throat of said
container;

said throat plug assembly including a hollow cylindrical plug member having an open
upper end, an open lower end, and a cylindrical wall portion extending
therebetween;

a tube support positioned on said open upper end of said plug member;

a hollow tube, having upper and lower ends, secured to said tube support so that its
said lower end is positioned below said tube support within said plug member;

said open lower end of said plug member defining a valve seat;

a valve means movably positioned within said plug member and including a normally
closed valve and a hollow valve stem extending upwardly therefrom;

said hollow valve stem being slidably mounted on said hollow tube;

said valve being movable between open and closed positions;

said valve, when in its said closed position, seating upon said valve seat to close said
open lower end of said plug member;

1 a spring in said plug member which is in engagement with said valve means to yieldably
urge said valve to its said closed position;
said valve, when in its said closed position, preventing liquid within the container from
flowing therefrom;
5 said valve, when in its open position, permitting liquid within the container to flow
therethrough;
at least one of said tube support, said cylindrical wall portion or said valve stem having
a passageway formed therein;
said throat plug assembly, when said valve is in its said open position, permitting liquid
10 in said container to flow therefrom through said passageway, around said valve
and outwardly through said valve seat;
said throat plug assembly, when said valve is in its said open position, permitting air to
enter said container by passing through said valve seat, around said valve and
15 through said passageway.

2.

The combination of claim 1 wherein said passageway is formed in said cylindrical
wall portion.

3.

20 The combination of claim 2 wherein a plurality of spaced-apart passageways is
formed in said cylindrical wall portion.

4.

1

The combination of claim 1 wherein said passageway is formed in said valves stem.

5.

5

The combination of claim 1 wherein said passageway is formed in said tube support.

6.

10

The combination of claim 1 wherein a passageway is formed in said cylindrical wall portion and said valve stem.

7.

The combination of claim 1 wherein a passageway is formed in said cylindrical wall portion.

8.

15

The combination of claim 1 wherein a passageway is formed in said tube support and said valve stem.

9.

20

The combination of claim 1 wherein a passageway is formed in said valve stem and said cylindrical wall portion.

10.

The combination of claim 1 wherein a plurality of passageways are formed in said cylindrical wall portion and said tube support.

25

11.

1 The combination of claim 1 wherein said tube has its said upper end positioned
above said tube support.

12.

5 The combination of claim 1 wherein said valve includes an end portion which
protrudes through said valve seat for engagement by a closure cap mounted on the
container which will slightly open said valve to permit vapor pressure to be vented from
the container during shipment and/or storage.

13.

10 In combination,
a dispensing fixture;
an inverted liquid container having upper and lower ends;
said lower end of said container having a hollow throat extending downwardly therefrom
15 which has interior and exterior surfaces;
said throat of said container being detachably connected to said dispensing fixture;
a throat plug assembly having upper and lower ends, positioned in said throat of said
container;
20 said throat plug assembly including a hollow cylindrical plug member having an open
upper end, an open lower end, and a cylindrical wall portion extending
therebetween;
a tube support positioned on said open upper end of said plug member;

1 a hollow tube, having upper and lower ends, secured to said tube support so that its
said lower end is positioned below said tube support within said plug member;
said open lower end of said plug member defining a valve seat;
a valve means movably positioned within said plug member and including a normally
5 closed valve and a hollow valve stem extending upwardly therefrom;
said hollow valve stem being slidably mounted on said hollow tube;
said valve being movable between open and closed positions;
said valve, when in its said closed position, seating upon said valve seat to close said
open lower end of said plug member;
10 a spring in said plug member which is in engagement with said valve means to yieldably
urge said valve to its said closed position;
said valve, when in its said closed position, preventing liquid within the container from
flowing therefrom;
15 said valve, when in its open position, permitting liquid within the container to flow
therethrough;
at least one of said tube support, said cylindrical wall portion or said valve stem having
a passageway formed therein;
20 said throat plug assembly, when said valve is in its said open position, permitting liquid
in said container to flow therefrom through said passageway, around said valve
and outwardly through said valve seat;

1 said throat plug assembly, when said valve is in its said open position, permitting air to
enter said container by passing through said valve seat, around said valve and
through said passageway;

5 said dispensing fixture engaging said valve to move said valve to its said open position
when said container is attached to said dispensing fixture.

14.

The combination of claim 13 wherein said passageway is formed in said
cylindrical wall portion.

15.

10 The combination of claim 14 wherein a plurality of spaced-apart passageways is
formed in said cylindrical wall portion.

16.

15 The combination of claim 13 wherein said passageway is formed in said valves
stem.

17.

The combination of claim 13 wherein said passageway is formed in said tube
support.

18.

20 The combination of claim 13 wherein a passageway is formed in said cylindrical
wall portion and said valve stem.

19.

1 The combination of claim 13 wherein a passageway is formed in said cylindrical wall portion.

20.

5 The combination of claim 13 wherein a passageway is formed in said tube support and said valve stem.

21.

10 The combination of claim 13 wherein a passageway is formed in said valve stem and said cylindrical wall portion.

22.

15 The combination of claim 13 wherein a plurality of passageways are formed in said cylindrical wall portion and said tube support.

23.

20 The combination of claim 13 wherein said tube has its said upper end positioned above said tube support.